

Serial No. 10/614,330
Amendment dated April 7, 2008
Reply to Office Action of January 7, 2008

Docket No. P-0486

REMARKS

Claims 13-23 are pending. In this paper, amendments have been made to claims 13, 14, 16, 19, and 21-23 to clarify the invention over the cited references.

Reconsideration of the application is respectfully requested for the following reasons.

At the outset, Applicants would like to thank the Examiner for graciously extending Applicants' representative an interview on February 20, 2008, to discuss the rejections in the Office Action. During the interview, withdrawal of the § 112 and § 103 rejections were requested for the following reasons.

In the Office Action, claims 13-16 were rejected under 35 USC § 112, first paragraph, on grounds that the specification fails to provide written description of the "modem."

As discussed in the interview, a verbatim disclosure of all the features recited in a claim is not required, as long as after reading the specification one skilled in the art would reasonably concluded that the claimed invention contained those features. See MPEP § 2163.

As those skilled in the art understand, the word "modem" is actually an acronym for modulation-demodulation. In transmitting any signal based on a communication protocol, that signal must be modulated prior to transmission. This involves, for example, placing the signal information on a carrier wave. The carrier wave to be used and the manner in which the signal information is combined with the carrier wave is dictated by each communication protocol. Therefore, those of ordinary skill in the art would expect any communication system, including multi-access systems, to include modem.

Turning now to claim 1, this claim recites a multi-access system, including a modem, coupled to a personal computer through a Bluetooth connection. Since the multi-access system receives communication signals from the personal computer and also transmits signals to this same computer, one of ordinary skill in the art would understand that the multi-access system includes a modem. The inclusion of a modem is also made clear in view of the signals transmitted to and received by terminals 300, 310, etc. (See Figure 2 of the application drawings).

Claim 1 also names the specific type of communication protocol used to convey signals between the personal computer and multi-access system, namely a Bluetooth protocol. Those skilled in the art understand that communications performed based on this protocol are performed using a modem, e.g., see the Attachment to this paper which shows a representative sampling of the multiple Bluetooth modems that exist on the market today.

In view of the foregoing considerations, Applicants submit that the specification provides a description sufficient to support the recitation of “a multi-accessing system, including a modem” in the claims. Withdrawal of the § 112 rejection is therefore respectfully requested.

Claims 13-23 were rejected for being obvious in view of an Agrawal-Cousins combination. Applicants request withdrawal of this rejection for the following reasons.

Claim 1 recites (1) transmitting data packets between a personal computer and a multi-accessing system that includes a modem through the Bluetooth connection and (2) that the multi-accessing system including the modem transmits the data packets via an air interface for accessing the Internet. These features are not taught or suggested by the cited references.

The Agrawal patent discloses establishing a Bluetooth connection between a master device and a slave device. However, as emphasized during the interview, Agrawal does not teach or suggest that either device is a personal computer or a multi-accessing system that includes a modem. Moreover, Agrawal does not teach or suggest that the master device or the slave device transmits the data packets, received from a personal computer over a Bluetooth connection, to an air interface for accessing the Internet.

To make up for deficiencies of Agrawal, the Cousins publication was cited. The Cousins publication only discloses transmitting data between a client and server through a modem. As emphasized during the interview, Cousins does not teach or suggest that a multi-access system including a modem that receives data packets from a personal computer over a Bluetooth connection.

Based on these differences, it is respectfully submitted that claim 13 and its dependent claims are allowable over an Agrawal-Cousins combination.

Claim 18 recites that the multi-access system of the modem “sends the data packets through the plurality of radio communication terminals based on a same destination IP address and a same data link address, said same data link address corresponding to the computer.” Claim 18 further requires, by virtue of claim 16 from which it also depends, that the multi-access system “sends data packets belonging to a same call from the computer for wireless transmission through a plurality of radio communication terminals.” These features are not taught or suggested by the Agrawal and Cousins references.

The Agrawal patent merely discloses transmitting packets between master and slave devices through a Bluetooth connection. And, Cousins discloses transmitting data packets between the Internet and a client via a modem. However, neither reference teaches or suggests the invention defined in claim 18. Accordingly, it is submitted that claim 18 is allowable, not only by virtue of its dependency from claim 13 but also based on the features separately recited therein.

Claim 19 recites “a multi-access routing system for routing data packets from the multimedia system to the radio communication terminals according to a slot assignment method.” The Agrawal patent discloses slots but those slots are not used in the same way as the multi-accessing system of claim 19, e.g., for routing data packets received from a computer through a Bluetooth connection, for transmission to an air interface for the Internet.

Claim 21 recites that the slot assignment method comprises “performing a one-on-one assignment for mapping each of the computer to a respective one of the radio communication terminals; and a common sharing method for allowing each computer to share the plurality of radio communication terminals for transmitting data packets.” These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 22 recites “a plurality of physical data link control circuits provided in one-to-one correspondence with the plurality of computers, each of said physical data link control circuits controlling a corresponding physical data link; a TCP/IP control circuit to perform a TCP/IP protocol function on data packets transmitted from the plurality of physical data link control

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circuits; a command/response control circuit for performing/responding to a command of the computers transmitted from the TCP/IP control circuit; and a data control circuit for sorting and buffering data transmitted from the TCP/IP control circuit.” These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 23 recites that the multi-access routing system “sets a slot assignment method according to a command of at least one of the computers, assigns a slot to said one of the computers according to the set slot assignment method, and routes data packets associated with a same call between said one of the computers and multiple ones the radio communication terminals based on said same destination IP address and said same data link address associated with each of the packets.” These features are not taught or suggested by the cited references, whether taken alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and timely allowance of the application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and

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please credit any excess fees to such deposit account.

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